Press Release

For Immediate Release
October 26, 2007

Contact: Tim Anderson
707.521.6208

Ocean Conditions Impact Salmon Returns in the Russian River

Santa Rosa, CA– The Sonoma County Water Agency (Agency) reported today that changes in ocean conditions are likely playing a major role in the low numbers of Chinook salmon returning to the Russian River this year. As of October 26th fisheries biologists recorded passage of less than 100 Chinook salmon past its monitoring stations near Forestville on the Russian River. Normally several hundreds to thousands of Chinook would have come upstream at this point in the season.

"The late Chinook returns and low numbers to-date are of some concern to us considering the favorable conditions in the river over the past two weeks," said Paul Kelley, a member of the Agency's Board of Directors. "It's possible that the fish will just come late this year but we are certainly concerned about the lack of fish right now," Kelley added.

Fisheries biologists statewide are closely monitoring the salmon returns in other river systems and have expressed concern about the impact of ocean conditions on the Chinook salmon which are listed as "Threatened Species" under both state and federal endangered species laws.

"We've heard reports that Chinook returns in the Sacramento Valley are also at very low numbers at this point in the season," said Sean White, Principal Environmental Specialist with Sonoma County Water Agency. Reports have come in regarding the Yuba River where only 54 fall run Chinook salmon were counted in September compared with 909 during the same period last year. "I am concerned about the low salmon counts to-date but it's still too early to be definitive about the status of this year's salmon runs," White added.

Chinook salmon and other salmon species are listed as threatened and, in some cases endangered, under state and federal endangered species laws. Federally funded restoration programs have restored more than 300 stream miles of salmon habitat and removed thousands stream barriers that blocked migration of salmon in California.

Many of the Pacific Coast salmon populations have been rebounding in recent years, at least in-part due to these programs as reported by the National Oceanic and Atmospheric Administration.

"The habitat improvements have been very beneficial but we are finding out that the fish which spend most of their life cycle in Pacific are also vulnerable to changes occurring at sea," Kelley noted.

"We're greatly concerned about the low numbers in some of our salmon runs, particularly since there's been very little fishing pressure in the last three years," said Zeke Grader, Executive Director of the Pacific Coast Federation of Fishermen's Associations. "Obviously the collapse of the Sacramento-San Joaquin Delta has had an impact on Central Valley salmon populations and the problem may be exacerbated by ocean conditions, especially the lack of krill (a forage species for salmon and sea birds). This could explain the low numbers of Russian River salmon."

The late return of Chinook salmon follows changes in ocean conditions in the Pacific that may have affected the salmon while at sea where most of their life cycle occurs. Increasing attention has been focused in recent years on the role of ocean variability in marine food webs and the resulting impacts to salmon populations. In recent years, krill, a major food source of ocean salmon, has shown significantly low numbers as observed by long-term monitoring of seabirds on the Farallon Islands. Additionally, areas of low oxygen, or hypoxia, have been observed off Oregon with deleterious impacts to marine communities. Longfin smelt which use the Pacific Ocean for much of their life cycle have recorded a 96% decline this past year, the lowest numbers ever recorded.

“During the past three years a zone of hypoxia, has been recorded off Oregon. This year the event became more extreme with anoxic (no oxygen) zones being observed resulting in mortality of fish and invertebrates,” said Paul Siri, who coordinates ocean observing programs for the State Coastal Conservancy with one objective being the delivery of better ocean information for managing marine resources.

The Oregon hypoxia and anoxia events appear to be linked to interactions of biology and physics with low wind events (similar to what is thought to create the low krill numbers) creating stratification in the ocean. This stratification creates results in low oxygen and is exacerbated when rising numbers of fish and invertebrates die and bacteria consumes the remaining oxygen,” Siri added.

The Integrated Ocean Observing System, a national network of coordinated physical, biological and chemical ocean monitoring, has been identified as one of the nation’s top ten ocean management priorities as called for the Joint Ocean Commission co-chaired by Leon Panetta and Admiral John Watkins. The State Coastal Conservancy together with the California Ocean Protection Council have made implementation of an ocean observing system a state high priority and have invested more than $21 million dollars in the initial phase.

“Once the appropriate ocean observing infrastructure is in place and is integrated with ongoing biological surveys then the stage is set to develop ecological forecasting where ocean conditions can be factored into all aspects of salmon management,” Siri adds.

Staff from Sonoma County Water Agency will continue to monitor the return of Chinook salmon in the Russian River this fall. “Equipment installed in Agency fish ladders allow us to know how many fish are headed upstream,” said Sean White. “It’s fairly common to see a large number of fish in one day when the run reaches its peak. If that happens, we’ll be in a lot better shape for this season,” said White.

###

Sonoma County Water Agency provides water supply, flood protection and sanitation services for portions of Sonoma and Marin counties. Visit us on the Web at www.sonomacountywater.org.